REMARKS

This paper is responsive to the Final Office Action dated February 17, 2005. Claims 6-8, 10-15, 18, 22, 23, 27, 28 and 32 were examined. Claims 6-8, 10, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,141,329 to Turner in view of U.S. Patent No. 5,566,182 to Gantner et al. Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Gantner, further in view of U.S. Patent No. 6,067,300 to Baumert et al. Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Gantner, further in view of U.S. Patent No. 6,212,194 to Hsieh. Claims 14, 15, 18, 22, 23, 27, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of U.S. Patent No. 6,404,756 to Whitehill et al. and Turner in view of U.S. Patent No. 6,304,578 to Fluss. Claim 32 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Turner in view of Whitehill, Baumert, and U.S. Patent No. 6,728,243 to Jason, Jr. et al.

Regarding claim 8, Applicants respectfully maintain that Turner in view of Gantner fails to teach or suggest

> a synchronization operation that includes at least one of a lock operation, an atomic read-modify-write operation, and a fetch-and-increment operation,

as required by claim 8. Applicants respectfully point out the synchronization channel in Gantner is associated with ISDN and submit that the claimed synchronization operations are not obvious to use on the synchronization channel in Ganter. The Final Office Action states that Gantner teaches that each ISDN frame comprises a header comprising F-bits utilized for synchronization and that the reading of these bits is a lock operation. However, the Final Office Action fails to point out where Gantner, or other references of record, provides such a teaching and Applicants respectfully request the Examiner to point out by column and line number where the references of record provide such a teaching. Accordingly, Applicants respectfully maintain that claim 8, and all claims dependent thereon, distinguish over Turner in view of Ganter.

Regarding claim 14, Applicants respectfully maintain that Turner, Whitehill, and Fluss alone, or in combination, fail to teach or suggest that

> during node initialization, a node coupled to the output port listens to grant packets and uses the unique identifier as its node identifier in subsequent transactions over the data network,

as recited by claim 14. The Final Office Action relies on col. 6, lines 61-65 of Fluss to supply this teaching. This portion of Fluss teaches a router reading a header of an incoming packet to determine the packet's destination address. Nowhere does Fluss, Turner or Whitehill teach or suggest listening to grant packets during initialization and using a unique identifier included in the grant packet to identify the node in subsequent transactions over the data network, as required by claim 14. Accordingly, Applicants respectfully submit that claim 14 and all claims dependent thereon distinguish over Turner, Whitehill, and Fluss, alone, or in combination.

Regarding claim 15, Applicants respectfully maintain that Turner, Whitehill, and Fluss alone, or in combination, fail to teach or suggest that

> the grant indication is provided at a fixed time in each frame, a frame being a predetermined time period, and the grant indication synchronizes nodes of the network to the frame,

as recited by claim 15. The Final Office action col. 6, lines 61-65 of Fluss to supply this teaching. This portion of Fluss teaches a router reading a header of an incoming packet to determine the packet's destination address. Nowhere does Fluss, Turner or Whitehill teach or suggest a grant indication that synchronizes nodes of the frame. The Final Office Action "interprets" the incoming downstream IP packets of Fluss as grant indications, however, Fluss fails to teach or suggest this interpretation. Accordingly, Applicants submit that claim 15 distinguishes over Turner, Whitehall, and Fluss, alone, or in combination.

Regarding claim 18, Applicants respectfully maintain that Turner, Whitehill, and Fluss alone, or in combination, fail to teach or suggest that

> the request indication, the grant indication and an acknowledge indication are always sent at different

> times over the low latency channel, thereby avoiding collisions between the request indication, the grant indication and the acknowledge indication, the acknowledge indication being sent by a receiving node over the low latency channel to indicate successful receipt of information sent over the high bandwidth channel,

as recited by claim 18. The Final Office Action relies on col. 8, lines 42-53 of Whitehill, which teaches inserting a random delay to reduce the likelihood of collision when sending an RTS message. Although randomization reduces the likelihood of collision, randomization does not avoid collisions altogether. The claim recites always sending the request, the grant, and the acknowledge at different times over the low latency channel. That is not taught or suggested in Whitehill or the other references of record. Accordingly, Applicants submit that claim 18 is patentable over Turner, Whitehall, and Fluss, alone, or in combination.

Regarding claim 22, Applicants respectfully maintain that Turner, Whitehill, and Fluss alone, or in combination, fail to teach or suggest

> transmitting smaller sized data packets across the low latency channel with limited scheduling,

as recited by claim 22. The Final Office Action relies on col. 7, lines 22-39 of Fluss to supply this teaching. This portion of Fluss teaches distinguishing between large and small packets and assigning small packets higher priority than large packets. The Final Office Action states that the small packets of Fluss are transmitted with limited scheduling because they are only transmitted when a connection is made, destroyed, or acknowledged. Applicants respectfully point the Examiner to the specification, on page 2, lines 20-31 and page 8, lines 12-29, which discuss scheduling. Applicants respectfully point out that transmitting a small packet when a connection is made, destroyed, or acknowledged by Fluss fails to teach scheduling the small packets and fails to teach limited scheduling of smaller sized data packets, as required by claim 22. As pointed out in the specification on page 8, lines 12-20, limited scheduling is utilized because an efficient channel transmitting low latency packets requires quick scheduling

decisions. Additionally, low latency packets are typically smaller-sized packets that do not cause long lasting blockages. The transmission error rate, therefore, may be of less concern for low-latency channel because an error affects a relatively short data transfer. Therefore, retransmission of a packet that had a transmission error has an acceptable overhead. Applicants respectfully submit that claim 22, and all claims dependent thereon, distinguish over Turner, Whitehall, and Fluss, alone, or in combination.

In summary, claims 6-8, 10-15, 18, 22, 23, 27, 28 and 32 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Respectfully submitted,

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